

Supplemental Table 1. Features of patients and mice with RecQ deficiencies

<u>BLM helicase</u>	<u>WRN helicase</u>	<u>RECQL4 helicase</u>		
Bloom syndrome	Werner syndrome	Rothmund- Thomson syndrome	Baller-Gerold syndrome	RAPADILINO syndrome
Short stature, skeletal abnormalities	Short stature, thin limbs	Short stature, skeletal abnormalities	Skeletal abnormalities, craniosynostosis	Short stature, skeletal abnormalities
Cancer: normal distribution and type	Cancer: sarcomas, mesenchymal	Cancer: osteosarcoma; lymphoma	Cancer: lymphoma	Cancer: osteosarcoma
Skin pigmentation changes: redness, dilated blood vessels	Skin changes: loss of fat, wrinkles	Skin pigmentation change: poikiloderma	Skin pigmentation change: poikiloderma	Cleft or arched palate
Mental retardation	Premature graying/loss of hair	Sparse hair		Normal intelligence
Immune deficiency	Osteoporosis	Dental and nail changes		Diarrhea
Type II diabetes	Type II diabetes			
Male infertility; female subfertility	Bilateral cataracts			
	Atherosclerosis			

Mouse models of RecQ helicases

Recq1	Blm	Wrn	Recq4	Recq5
KO: normal	KO: lethal Cond.: cancer	KO: ~normal +Terc ⁻ : aged	KO: lethal +APC ^m : cancer	KO: cancer

The human disease phenotypes were compiled from GeneReviews of BLM (1), WRN (2), and RECQL4 (3, 4). Knockout (KO) mouse model data were collected from Recq1 (5), Blm (6-9), Wrn (10-12), Recq4 (13, 14), and Recq5 (15). Abbreviations: Cond., conditional expression; Terc, RNA component of telomerase; APC, anaphase promoting complex.

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